



K News from KSU Animal Sciences

↪ **Developing and Implementing Your Company’s HACCP Plan** for meat, poultry, and juice processors will be September 28-30, 2022, in Olathe, KS. Information and registration for the 2.5-day International HACCP Alliance accredited workshop is online at <http://bit.ly/HACCPcourse>. For more information, contact Dr. Liz Boyle at lboyle@ksu.edu or 785-532-1247.

↪ **KSU Beef Stocker Field Day to be hosted September 29, 2022** – Come and help us celebrate the 23rd KSU Beef Stocker Field Day which will be hosted Thursday, September 29, at the KSU Beef Stocker Unit in Manhattan. The day will start at 9:30 a.m. with registration/coffee and conclude with a good old-fashioned Prairie Oyster Fry and Call Hall ice cream at 5:30 p.m. The schedule is as follows:

- 9:30 am Registration/Coffee
- 10:15 am Introductions
- 10:30 am **Beef Cattle Economic Outlook**
Glynn Tonsor, K-State
- 11:15 am **Ongoing Issues Surrounding the Transportation and Cattle Industry**
 - *Jeff George, Finney County Feedyard Inc., manager*
 - *Alleah Hilker Heise, Hilker Trucking, president*
 - *Jara Settles, Livestock Marketing Association, general manager & VP of risk mitigation*
 - *Margaret Ann Smith, Southlex Cattle Company, owner**Moderated by Wes Ishmael, Hereford World, executive editor*
- 12:30 pm Barbecue Brisket Lunch – View posters
- 1:15 pm **Evidence-Based Approach to Improving Stocker Health and Performance**
John Davidson, Boehringer Ingelheim Inc., cattle professional services senior associate director
- 2:15 pm **Triumphs and Tribulations of Respiratory Disease in Stocker Calves**
Robert Smith, Stillwater, OK
- 3:00 pm Break
- 3:30 pm **Harnessing Nature: How to Use Dung Beetles to Improve Herd and Pasture Health**
Cassandra Olds, K-State
- 4:00 pm **Improving Efficiency Through Feeding Strategies and Cattle Comfort**
AJ Tarpoff, K-State
- 4:30 pm **Native Pasture Burning Strategies: Impacts on Cattle Performance and Pasture Vigor**
KC Olson, K-State
- 5:00 pm Cutting Bull’s Lament 2022

The day will conclude with a good old-fashioned Prairie Oyster Fry and Call Hall ice cream. Pre-registration is \$25 and due by September 15. For complete details and registration, visit www.KSUbeef.org. For more information, contact Dale Blasi (dblasi@ksu.edu; 785-532-5427) or Lois Schreiner (lschrein@ksu.edu; 785-532-1267).

Department of Animal Sciences and Industry

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www.asi.ksu.edu - Facebook.com/KSUASI

September 2022



UPCOMING EVENTS...

☞ Register now for the 8th annual **ASI Family and Friends Reunion** to be held on Saturday, October 8, 2022, at the Stanley Stout Center. The event will begin at 4:00 pm with dinner served at 5:30 pm. To register, go to www.asi.ksu.edu/familyandfriends. The registration deadline is September 23. This year we will be honoring Dr. Dave Nichols with the Don L. Good Impact Award. Make plans now to attend.

☞ **Make plans now to attend the 2022 KSU Swine Day.** The 2022 KSU Swine Day will be hosted Thursday, November 17, at the KSU Alumni Center. The schedule for the day includes:

8:00 a.m. – 4:00 p.m. Trade Show

9:15 a.m. Welcome

Dr. Mike Day, Department Head, Animal Sciences and Industry

9:30 a.m. Latest Update on K-State Applied Swine Nutrition Research: 15-minute rotation including topics on Swine Nutrition, Management, Feed Processing, and Feed Safety

K-State Swine Faculty

11:30 a.m. Lunch with Trade Show

1:30 p.m. Latest Update on K-State Applied Swine Nutrition Research (continued)

2:30 p.m. A Look Back While Preparing for the Future of our Industry

Dr. Steve Pollmann, DSP Consulting LLC

3:15 p.m. Question and Answer Session

3:30 p.m. Reception with K-State Ice Cream

Pre-registration fee is \$25 per participant by November 10, with registration at the door \$50 per participant.

There is no charge for any students if they are pre-registered. The complete schedule and online registration information can be found at www.KSUswine.org. For more information, contact Lois Schreiner at lschrein@ksu.edu or 785-532-1267.

☞ **Youth for the Quality Care of Animals (YQCA) Instructor Certification** - YQCA is a national, multi-species youth livestock quality assurance program that was launched in 2017. Youth may participate in the program online or through a face-to-face class with a certified instructor. This is a fee-based program, which is \$12/child for the online course or \$3 for a face-to-face session. Kansas has renewed its partnership with the program for 2022-2023, which allows agents and ag teachers to have the opportunity to obtain their certification and teach youth the curriculum through face-to-face sessions. The fifth program year is coming to a close and the new curriculum will launch in early October. Agents who were certified last year will receive information on re-certifying as the new program year approaches. Any new or additional agents who would like to become certified need to email Lexie Hayes at adhayes@ksu.edu by September 26 to be added to the approved list for Kansas. Once agents complete the certification process, the YQCA staff will distribute the new materials and their certification will be valid until September 1, 2023. Any instructor or family who did not create an account on the new platform when the program transitioned in March of 2022, will need to do so soon. Everyone is encouraged to use the help documents available to make the process go smoothly and make sure accounts are set up correctly from the beginning. This will minimize complications later. Although a final decision will be confirmed by each respective board, we do anticipate exhibitors will continue to be required to complete YQCA certification annually to participate in the Kansas State Fair Grand Drive and the Kansas Junior Livestock Show.

Anyone who was a certified instructor for 2021-2022 should have received a survey link to provide feedback on the YQCA program. If you did not, please contact Lexie.

CALENDAR OF UPCOMING EVENTS

Date	Event	Location
September 28-30, 2022	Developing and Implementing Your Company's HACCP Plan	Olathe, KS
September 29, 2022	KSU Beef Stocker Field Day	Manhattan
October 8, 2022	ASI Family and Friends Reunion	Manhattan
November 17, 2022	KSU Swine Day	Manhattan

WHAT'S NEW...

Management Minute – Justin Waggoner, Ph.D., Beef Systems Specialist

“Good Help is Hard to Find”

“Good help is hard to find” which alternatively means that the “good help we have is worth retaining.” I recently had a conversation with a colleague who is changing positions. As we discussed some of the challenges associated with the transition, from selling a house to placing children in a new school, I found myself considering why do good people leave positions, given the magnitude of the challenges associated with making a professional change. In some instances, people do get the opportunity to pursue their dream job. In other situations, life circumstances, such as children or being closer to family, are cited as common reasons. However, according to www.thebalancecareers.com the most common reason that people leave jobs is ultimately related to factors within the workplace, such as a bad boss or supervisor, lack of trust within the organization, failing to recognize the employee’s contributions or strengths, or the inability to use their skills. Many of these reasons come down to job satisfaction and creating an environment where people want to come to work. We spend roughly 1/3 of our day at work, so creating a positive work environment where employees feel valued and trust that supervisors and the organization cares about them can go a long way towards retaining the good help we have today.

For more information, contact Justin Waggoner at jwaggon@ksu.edu.

Feedlot Facts – Justin Waggoner, Ph.D., Beef Systems Specialist

“Some Thoughts on Calf Revenue”

The air is now crisp in the morning, and it won’t be long before we see the glimmer of ice crystals in the water tank. Many producers are weaning and will be marketing calves in the coming weeks and months. Margins in the cattle industry and agriculture in general are often unfortunately narrow and this year is no exception. Maximizing calf revenue is important for cow/calf producers every year but is even more important in years where the probability of loss is greater than profit. Calf revenue from my academic perspective is driven by three factors, 1.) the number of calves sold, 2.) sale weight of calves, and 3.) price received. Cow/calf producers to some extent have control over the number of calves sold and sale weight. The number of calves sold is essentially a function of stocking rate, cow fertility, and/or reproduction on an operation. The sale weight of calves is more complex, but is a multi-factorial combination of genetics, calving distribution, calf age, nutrition, management, and technology use (implants). Price received is likely the most influential of the three factors that drive calf revenue and is the factor that cow/calf producers often believe they have the least ability to control. Once a set of calves enters the sale ring or appears on the video screen their value is determined by what two prospective buyers are willing to pay. Although it is impossible for producers to directly influence what buyers are willing to pay, I would argue that they are not completely helpless. Cow/calf producers directly control what they will sell (weaned calves, value-added calves, or feeders) and determine when they will sell. These are difficult and complex decisions which shouldn’t necessarily be made based upon weekly cattle sale reports or the thoughts of your favorite livestock market commentator. I am not saying that keeping informed about current market conditions is not important. However, that information, when used with resources like Beef Basis (www.beefbasis.com) that use data to evaluate different market scenarios from selling 6 weight calves the first week of December to seven weights in February, helps producers make the best decision for their operations. Producers also control what information or data they pass along to the new owner. We all know that data has value in today’s world. I like to compare marketing calves to selling a beautifully restored pickup. If you were selling a pickup, you would share with a prospective buyer every bit of information you had and the details of the process, from the atmospheric conditions when the truck was painted to the actual sales invoice from 1972. Why should selling a set of calves be any different? Value-added programs and certified sales provide potential buyers with some degree of assurance that your cattle were managed within the guidelines of the program. If you do not participate in a defined program, providing the auctioneer or sales representative with as much information as possible about your cattle only helps them do their job better which is to get the best price for your cattle.

For more information, contact Justin Waggoner at jwaggon@ksu.edu.

WHAT'S NEW...

- ☞ **Communications and Marketing Assistant - (Job #513628)** – This is a full-time, Unclassified Professional Staff, term contract position. The Communications and Marketing Assistant will join a dynamic team within the Department of Animal Sciences and Industry to assist various personnel with recruitment, communications with youth, current and future students, stakeholders, and ASI personnel, youth activities, and events. Review of applications begins September 12, 2022, and continues until position is filled. For more information, contact Dr. Karol Fike, Search Committee Chair, at 785-532-1104 or karol@ksu.edu. To apply, go to <https://careers.pageuppeople.com/742/cw/en-us/job/513628/communications-and-marketing-assistant>.
- ☞ **Accountant II - (KABSU; Job #513631)** – This is a full-time, Unclassified Professional Staff, term contract position. The Kansas Artificial Breeding Service Unit (KABSU) is a unit within the Department of Animal Sciences and Industry at Kansas State University. KABSU is a bovine reproduction center providing reproductive resources to livestock producers throughout Kansas and adjoining states. KABSU evaluates bull fertility (BSE), collects and processes bovine semen, both on site and in the field, and maintains a cryogenic semen storage facility for all animal species. KABSU provides both domestic and international shipping of KABSU storage inventory and breeding products. This position will manage the KABSU office and manage the daily bookkeeping, records, and reconciliation business system. Review of applications begins immediately and continues until position is filled. For more information, contact Dr. Tom Taul, Search Committee Chair, at 785-539-3554 or ttaul@ksu.edu. To apply, go to <https://careers.pageuppeople.com/742/cw/en-us/job/513631/accountant-ii>.
- ☞ **Assistant or Associate Professor, Animal Breeding and Genetics** – (Job #513776) – This is a 12-month, Tenure-track Faculty position. The Animal Sciences & Industry Department houses the largest undergraduate degree program at Kansas State University in combination with a robust research focus across most primary disciplines and species/products in the animal and food sciences. We are seeking applicants for a 12-month, tenure-track position (70% Teaching, 30% Research). The position will be at the rank of Assistant or Associate Professor (commensurate with experience) and located in Manhattan, KS. The successful individual will contribute primarily to the department's land-grant missions in teaching and research. Teaching responsibilities will include core courses in animal breeding and genetics (currently ASI 500 Genetics and ASI 510 Animal Breeding Principles) and other coursework consistent with the successful individual's interests and departmental needs. Serving as a faculty advisor for undergraduate students is also expected. The successful individual is expected to contribute to a productive research program relevant to animal agriculture and will have the opportunity to contribute to an established research program in animal breeding and genetics. Expertise in genetic evaluation, high-throughput genome analysis, metagenomics, functional genomics, and/or other areas of genetics or genomics with applications to production efficiency and quality, health, and disease resistance of animals is desired. The successful individual is expected to participate in graduate student training and other relevant teaching and interdisciplinary research activities. Review of applications begins October 17, 2022. For best consideration, apply by October 17, 2022. For more information, contact Dr. Megan Rolf, Search Committee Chair, at megrolf@ksu.edu or 785-532-1450. To apply, go to <https://careers.k-state.edu/cw/en-us/job/513776/assistant-or-associate-professor-animal-breeding-and-genetics>.
- ☞ **Research Assistant** – (Farm Shop/Poultry Unit; Job #513800) – This is a full-time, Unclassified Professional Staff, term contract position. This position is key to supporting the Department of Animal Sciences and Industry teaching and research across the entire Department. This position will provide dual support to the Farm Shop Unit and the KSU Poultry Unit. This position will be supervised by the ASI Units Farm Manager, who will coordinate with the Poultry Supervisor for related duties and overall performance evaluation done yearly. Review of applications begins immediately and continues until a candidate has been identified. For more information, contact Bob Heptig, Search Committee Chair, at bobheptig@ksu.edu or 785-256-5420. To apply, go to <https://careers.k-state.edu/cw/en-us/job/513800/research-assistant>.

WHAT'S NEW...

↪ **Sampling Procedures for Silage Crops** - With the unusually dry conditions this year, much of the corn across the state may already be harvested for silage or will be soon. Chopping sorghum/sudan crops and other summer annuals for silage will not be far off as well. As a continuation of Dr. Justin Waggoner's article in the August Feedlot Facts, the goal with this discussion is to focus our attention on the importance of proper silage sampling. Crops harvested for and stored as silage are by their very nature highly variable with regard to nutrient content because so many factors affect the ensiling process. Our goal with silage is to preserve the nutrients that exist in the live standing crop as much as possible for feeding at a later time. Sampling chopped silage at the time of harvest while it is being put in storage does give us insight to initial nutrient content. However, due to fermentation, a more accurate estimate of silage quality is obtained if samples are taken as the feed is being removed from storage to be fed. Under most conditions, ensiling requires 3-5 weeks for completion. Since some nutrient components can be altered by fermentation, delaying silage sampling until after that period or until the time of feeding is recommended. For more information on collecting silage samples, visit <https://enewsletters.k-state.edu/beef tips/2022/09/01/sampling-procedures-for-silage-crops/>. For more information, contact Jason Warner (785-532-1460; jasonwarner@ksu.edu).

↪ **Syngenta Enogen Corn Fed as Corn Grain and Corn Silage in Diets Containing Corn Coproducts Did Not Enhance Diet Digestibility in Growing Heifers** – The objective was to evaluate the effect of feeding corn grain and corn silage from Enogen corn or conventional corn (CON) in diets containing either wet distillers grain or Sweet Bran on intake and digestibility in growing cattle. Eight ruminally cannulated crossbred heifers were used in an intake and digestibility study designed as a replicated 4 × 4 Latin square. Four consecutive, 15-day periods consisted of 10 days for diet adaptation, four days of fecal sampling, and one day of ruminal sampling. Heifers were fed once daily at 10:00 a.m. Chromic oxide (Cr₂O₃) was used as an external digestion marker to calculate apparent total-tract diet digestibility. Heifers eating EC tended to have greater starch digestibility than heifers eating CON. No differences in dry matter or fiber digestibilities were observed between corn sources. There was coproduct × hour interactions for concentration of ruminal ammonia and two branched chain fatty acids, isobutyrate and isovalerate. In heifers fed WCGF, isobutyrate and isovalerate concentrations reached a peak at two hours after feeding, then declined between 2 and 24 hours after feeding. Heifers fed WDG isobutyrate and isovalerate concentrations were greatest at 0 hours after feeding. Differences between concentrations of isobutyrate and isovalerate can be explained by differences in protein digestibility of WCGF and WDG.

The Bottom Line: Enogen corn hybrids fed as dry rolled corn and corn silage in diets containing corn coproducts did not result in better diet digestibility compared to conventional corn hybrids, but diets containing WDG may offer better growth performance for growing cattle due to more ruminally undegradable protein compared to diets containing WCGF. More information is available in the KSU Cattlemen's Day report at www.KSUbeef.org. For more information, contact Dale Blasi (785-532-5427; dblasi@ksu.edu).

↪ **Effect of Ruminally-Protected Lysine Supplementation to Growing Cattle on Growth and Subsequent Finishing Performance** - The objective of this study was to evaluate the effects of ruminally-protected lysine supplementation fed during the growing phase to cattle limit-fed a corn-based diet, and to evaluate the subsequent finishing performance. For 77 days, a group of 338 steers limit-fed at 2.4% of body weight daily on a dry matter basis were allocated to treatments providing 0, 3, or 6 g/day of lysine from Smartamine ML or containing blood meal plus ruminally-protected methionine from Smartamine M. Growth performance was measured over the growing period. Cattle were then shipped to a commercial feedlot and fed without treatment until slaughter. Finishing performance was gathered from carcass data. Steers supplemented with 3 g/day of lysine appeared to have the greatest response during the growing phase, having the heaviest body weights on day 77, and greatest average daily gains and gain:feed ratios. In the finishing phase, cattle that received 3 g/day of lysine during the growing phase maintained the weight advantage, relative to the control, established during the growing phase. Cattle receiving 6 g/day of lysine during the growing phase performed best during the finishing phase. Cattle receiving 3 and 6 g/day of lysine during the growing phase had carcasses that were 8 and 16 lb greater, respectively, than the control.

The Bottom Line: When fed corn-based diets, supplementation of ruminally-protected lysine during the growing phase may improve growth performance of cattle during the growing and/or finishing phase, leading to improvement in greater carcass weights. More information is available in the KSU Cattlemen's Day report at www.KSUbeef.org. For more information, contact Evan Titgemeyer (785-532-1220; etitgeme@ksu.edu) or Dale Blasi (785-532-5427; dblasi@ksu.edu).

WHAT'S NEW...

- ↪ **Effects of Standardized Ileal Digestible Lysine Level on Growth Performance of 80 to 120 lb DNA Grow-Finish Pigs** - The objective of this study was to estimate the SID Lys requirement for growth and feed efficiency of 80- to 120-lb DNA grow-finish pigs. A total of 608 barrows and gilts were used in two separate studies lasting 14 and 21 d, respectively. Pens of pigs were blocked by BW and randomly allotted to 1 of 6 dietary treatments with 7 to 9 pigs per pen and twelve replications per treatment in a randomized complete block design. Similar number of barrows and gilts were placed in each pen. Dietary treatments were corn-soybean meal-based and formulated to 0.80, 0.88, 0.96, 1.04, 1.12, and 1.20% SID Lys. Increasing SID Lys increased the average daily gain (ADG), resulting in pigs fed 1.20% SID Lys having the greatest final body weight. The F/G improved, while lysine intake/d, and lysine intake/kg of gain increased with increasing SID Lys. Feed cost per pig and feed cost/lb gain increased with increasing SID Lys. Total revenue per pig tended to increase with increasing SID Lys. At low ingredient and pig prices, income over feed cost (IOFC) tended to decrease as SID Lys increased. At high ingredient prices, there were no differences in IOFC among dietary treatments. In summary, these results suggest that for 80- to 120-lb DNA growing-finishing pigs, the response to SID lysine was linear to at least 1.20% of the diet. However, based on current ingredient prices, the improved growth performance observed with increasing SID Lys did not offset the added diet costs, suggesting growth performance must be compared with IOFC when deciding optimal levels. More information is available on this experiment in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Rafe Q. Royall, Robert D. Goodband, Mike D. Tokach, Joel M. DeRouchey, Jordan T. Gebhardt, and Jason C. Woodworth.)
- ↪ **Effect of Increasing L-Lysine-HCl and Amino Acid Ratios on Performance of Finishing Pigs From 240 to 285 lb** - A total of 1,789 pigs were used to determine the effects of increasing L-Lys-HCl and AA ratios on performance of late finishing pigs fed diets without DDGS. The study used two groups of pigs and each study lasted 18 and 27 d, respectively. Pigs were housed in mixed gender pens with 20 to 25 pigs per pen and nineteen replications per treatment (10 and 9 replications per group, respectively). Pens of pigs were blocked by BW and randomly allotted to 1 of 4 dietary treatments. Treatment diets consisted of low, medium, or high levels of feed-grade AA and moderate or high AA ratios relative to Lys. Medium and high levels of feed-grade AA treatments had increased L-Lys-HCl in replacement of soybean meal to achieve CP levels of 12.0, 11.0, and 11.1%. The AA ratios were increased in the low CP diet to achieve a minimum of 60% Ile, 128% Leu, 36% Met, 70% Thr, 21.2% Trp, 72% Val, and 33% His for the high AA ratio treatment. Overall, there was a marginally significant increase in ADFI, with the greatest response observed in pigs fed medium feed-grade AA and moderate AA ratios. Treatment diets had no effect on ADG or F/G. At the end of study two, carcass data were collected and analyzed. No differences were observed for HCW, carcass yield, backfat depth, loin depth or percentage lean. In summary, differing levels of feed-grade AA and AA ratios did not impact growth performance or carcass characteristics with the exception of a marginally significant increase in ADFI. More information is available in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Larissa L. Becker, Mike D. Tokach, Robert D. Goodband, Joel M. DeRouchey, Jason C. Woodworth, and Jordan T. Gebhardt.)
- ↪ **Effect of Benzoic Acid and Essential Oil Blends on Viral Load in Swine Feed and Vitamin Premix** - Feed has been shown to harbor viable virus of interest to swine producers over an extended period of time. The use of mitigants and kill steps have been investigated with variable results. This study investigated the use of benzoic acid (BA) and an essential oil blend (EO) to mitigate the presence of porcine epidemic diarrhea virus (PEDV), porcine reproductive and respiratory syndrome virus (PRRSV), and Senecavirus A (SVA) in a complete diet and a vitamin premix. Four treatments consisting of 0.5% BA; 0.5% BA and 200 ppm EO; 0.3% BA and 120 ppm EO; and 0.25% BA and 100 ppm EO were used in the complete feed, in addition to a control with no feed additive to test the mitigant's effect on PEDV, PRRSV, and SVA detection. For Exp. 2, a vitamin premix without chemical treatment acted as the control and the other treatment was the vitamin premix treated with 2.68% EO, with both used to determine PEDV detection. The inoculated feed or premix was stored for up to 15 d with sampling points at 2, 5, and 15 d post-inoculation. Samples were analyzed using a triplex qRT-PCR to detect changes in RNA quantities for all three viruses. A significant treatment × day interaction was observed in the feed for both PEDV and SVA. Per the decreased cycle threshold (Ct) value, the 0.5% BA treatment had higher measurements of detectable PEDV on d 2 and 5, and lower amounts of detectable PEDV on d 15, as compared to the control. The 0.5% BA treated feed had lower detectable SVA on d 2 but higher detectable SVA on d 15 compared to the control. There was no evidence of difference in detectable PRRSV between treatments. During this experiment, PEDV and SVA showed a degradation over time with rates of degradation varying between treatments. Increasing time from d 2 to 15 decreased detectable PRRSV. The use of the EO in the vitamin premix had no evidence of a treatment × day interaction, treatment effect, or degradation over time. In conclusion, the use of 0.5% BA had an increased PEDV Ct on d 15 compared to the control. However, the use of BA and EO mitigant in this model did not provide consistent evidence for increased viral degradation, but viral load was reduced in the feed matrix over time. More information is available in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Allison K. Blomme, Jordan T. Gebhardt, Cassandra K. Jones, Jason C. Woodworth, Elizabeth G. Poulsen Porter, Jianfa Bai, and Chad B. Paulk.)

ASI FACULTY SPOTLIGHT...



Jason Warner (jasonwarner@k-state.edu; 785-532-1460)
Assistant Professor, Extension Cow-Calf Specialist

Jason M. Warner grew up assisting with his family's farming and cow-calf operations in Nebraska. He was active in 4-H and FFA programs as a youth and attended the University of Nebraska-Lincoln earning bachelor of science degrees in Animal Science and Grazing Livestock Systems. While at UNL, Jason was a member of the livestock judging and meat animal evaluation teams. Having a strong interest in conducting cow-calf systems research, Jason continued training at UNL and subsequently earned both master's and doctorate degrees in Animal Science. Following completion of his doctorate degree, Jason served beef cattle producers throughout different segments of the cattle industry as part of a private consulting company that focused on providing nutrition and management service to clients.

Jason joined the faculty in the Department of Animal Sciences and Industry at Kansas State University in 2022 as an Assistant Professor and Extension Cow-Calf Specialist (30% research/70% Extension appointment). His objective is to help support the mission of the land-grant system by serving people through extension and research as part of the K-State beef extension team. Jason's specific focus is to help provide leadership for state extension beef programming efforts, disseminate information to the industry, collaborate with allied industry personnel and stakeholders, conduct applied cow-calf systems research, and serve as a point of resource for area specialists and county extension agents. Jason enjoys spending time with and taking care of his family. He and his wife, Danielle, have two boys, Beau, and Woodrow.



Billy Brown (brownb@k-state.edu; 785-532-7974)
Assistant Professor, Dairy Cattle Nutritional Physiology

Dr. Billy Brown grew up on his family's beef and hay operations during their time in Louisiana, Texas, and Kansas. In particular, it was an experience of milking dairy cows at a local dairy during the summer months that piqued his interest in the dairy industry. This led him to pursue dairy-related activities in youth organizations to continue to fuel his interest. Billy studied animal science with a dairy emphasis at Kansas State University, before completing a Master's degree in dairy cattle nutrition at Michigan State University. He took a 5-year break from academia to promote Kansas agriculture while working at the Kansas Department of Agriculture. In particular, he worked to expand the state's burgeoning dairy industry, led beef genetics trade missions to Latin America, and aided general agribusiness in establishing and growing within Kansas. Next,

Billy completed a doctoral program in dairy cattle nutrition at KSU, followed by postdoctoral training at the University of Wisconsin-Madison. During all his training, Billy broadly studied mechanisms of feed intake regulation, feeding behavior, and feed intake prediction modeling in lactating cows, in addition to applied studies in feed and forage quality, calf developmental programming, and dairy cattle nutrition.

Joining the faculty at KSU in 2022, Billy has a 60% teaching, 40% research appointment. He will be responsible for teaching introductory dairy and general nutrition courses. His research program will focus on dairy cattle nutritional physiology, with a particular interest in elucidating mechanisms contributing to variation in nutrient utilization and feed intake regulation in lactating dairy cows and development programming in calves. Billy and his wife, Jordan, live in Wamego.

WHAT PRODUCERS SHOULD BE THINKING ABOUT

WHAT PRODUCERS SHOULD BE THINKING ABOUT IN NOVEMBER...

BEEF -- *Tips by Dale Blasi, Extension Beef Specialist*

Spring Calving Cows

Cowherd Management

- Pregnancy check (if not already completed)
- If candidates for culling were not selected in September or October, it should be completed now.
- Consider feeding cull cows to increase body weight, value, and utilize cheap feedstuffs. Value of gain is equal to the difference between the ending value and beginning values divided by the gain. Compare this to cost of gain figures. When cost of gain is less than value of gain, profit will be realized.
- Body Condition Score
 - Provide thin cows (body condition score 3s and 4s) extra feed now. Take advantage of weather, stage of pregnancy, lower nutrient requirements, and quality feedstuffs.
- In late fall and early winter, start feeding supplement to mature cows using these guidelines:
 - Dry grass 1½ - 2 lb supplement/day of a 40% CP supplement
 - Dry grass 3 - 4 lb supplement/day of a 20% supplement
 - Dry grass 10 lb good nonlegume hay, no supplement needed
 - Compare supplements on a cost per pound of nutrient basis.
- Utilize crop residues.
 - Average body condition cows can be grazed at 1 to 2 acres/cow for 30 days assuming normal weather. Available forage is directly related to the grain production levels.
 - Limiting nutrients are usually protein, phosphorus, and vitamin A.
 - Strip graze or rotate fields to improve grazing efficiency.
- Discontinue feeding tetracycline if used for anaplasmosis control.

Calf Management

- Participate in National Level Breed Association Performance Programs CHAPS and(or) other ranch record systems.
- Finalize plans to merchandise calves or to background through yearling or finishing programs.

Forage/Pasture Management

- Plan winter nutritional program through pasture and forage management.

General Management

- Document cost of production by participating in Standardized Performance Analysis (SPA) programs.
- Review management decisions, lower your costs on a per unit of production concept.
- Plan your marketing program, including private treaty, consignment sales, test stations, production sales, etc.

*We need your input! If you have any suggestions or comments on **News from KSU Animal Sciences**, please let us know by e-mail to lschrein@ksu.edu*